

**DATA TRANSMISSION OVER MULTIPLE UPSTREAM CHANNELS WITHIN A  
CABLE MODEM SYSTEM**

**ABSTRACT OF THE DISCLOSURE**

A system and method are disclosed for transmitting upstream data from a cable modem within a cable television plant. One aspect of the invention pertains to a method that includes transmitting a first portion of the upstream data on a first upstream channel from the cable modem and transmitting a second portion of the upstream data on a second upstream channel from the cable modem. The second upstream channel differs from the first upstream channel. In another aspect, the invention pertains to a cable modem that includes a processor configured to initiate transmission on multiple upstream channels. The cable modem further includes an upstream transmitting component operating in conjunction with the processor and configurable by the processor to transmit data over multiple upstream channels. In one embodiment, the upstream transmitting component includes a first transmitter that is capable of being configured by the processor to transmit data at both a first upstream channel and a second transmitter that is capable of being configured by the processor to transmit at a second upstream channel that differs from the first upstream channel.